1: Handy E-5 (1920-1921)1923 OX6 Marquesas OX6

constituted as important a part in the accomplishment of enterprises as the actual practice itself. In making a new thing such as a coffin, a canoe, or a house, a most important stage consisted in the consecration of the new thing after its completion by the recitation of the creation or generation chant, which linked the new product of man's handicraft with the beginnings and successive stages of creation, uniting the new thing made with all that had gone before, from the beginning of the world. In the work of food collecting, fishing, and harvesting, the final stage consisted in the offering of first fruits—a very important part, as it was instrumental in leading to further successful accomplishments of the same work. Such offerings of first fruits relieved the foods of *tapu* by giving the gods their share, thus releasing the rest for human consumption.

Lastly, the accomplishment of undertakings of every kind was celebrated always with feasting and merrymaking. These periods of consecrated activity were always followed by long periods of inactivity and repose.

WOODWORK

The materials utilized in woodwork were beams, boards, and posts of wood, and cords to lash them together. The tools employed were stone adzes, stone chisels, mallets, and the pump drill. Most of the cord (*aho*) and rope (*tou'a*) was sennit cord, made chiefly from coconut fiber (*kaha*)—*pu'u kaha* being the generic term for sennit cord bindings and *ke'e kaha* and *kaha patapata* terms applied to such cord when used in ornamental lashings. Each lashing had its name, as *humu o Tana-oa, Fiti nui, Fiti peka,* and professionals (*tuhuna pehe*) devoted themselves to adapting the designs, which were taken from string figures (*pehe*—see Games), and to applying them in ornamental lashings. In these lashings cords of different colors were combined, some of them being of the natural reddish-brown color and others stained in water, colored with red earth, or according to one informant, dyed with the juice of the fruit of the *pu'u peni* (?); some were dyed yellow with *ena* or black by being buried in mud, or (according to Linton) by being soaked in juice from the bark of the *maii* (*Terminalia sp.*) tree, or were smeared with a paste blackened with candlenut soot; and some were made white by soaking in water in which white earth (or perhaps lime) was mixed. The manufacture of cord for nets has been described in connection with net-making. (See Fishing.)

According to Linton's information, three-, four-, six-, seven, and eight-strand rope was made, the three-strand (*tou'a*) and the four-strand (*fofii*) being the most common and the seven-strand being used for certain ceremonial purposes. It may be that the ceremonial significance of seven prevented the use of the seven-strand cordage for general purposes. In

1: Handy E-5 (1920-1921)1923 OX6 Marquesas OX6

283 322 designating the number of strands in a rope (*tou'a*), the word *tua* was used as a prefix, *tua to'u* meaning to triple and *tua fa* to quadruple. Thus *tou'a tua to'u* signified three-strang rope, *tou'a tua fa*, four-strand, and so on.

322 412 The adzes used in wood-work appear to have been always of stone, although Quiros (25, vol. 1, p. 28) speaks of adzes of "thick fishbone and shells." It appears that for the northern half of the group at least, the island of Ei Ao was a center for the industry of making adz heads, on account of good stone being found there, but the adzes were made everywhere out of the best available stone.

To'i (*or toki*), was the generic term for adzes. There were doubtless many special terms for various kinds but only a few of them are known. Among these are *toki paopao*, a large adz (8), *toki tui pu*, a very large adz with a handle four feet long for canoe-making, and *toki-ouao* (8), described by Dordillon. The adz handle consisted of a crooked piece of wood (fig. 16, *a*), usually *fau*, according to Linton. In a chant descriptive of canoe-making, *noni* is mentioned as being used for that purpose but that such was the case is very doubtful, as *noni* wood is too soft. Colored, ornamental sennit lashings were used in binding the head to the handle. A lashing mentioned in the chant above referred to was called *humu a Tana-oa* (lashing of *Tana-oa*). One of the string figures collected by [524] Mrs. Handy is called by the same name. The finding of this string figure furnishes us, therefore, with a definite and interesting example of the derivation of ornamental lashing designs from string figures. According to Linton the stone head was wrapped in bark cloth before being bound with the sennit, the cloth binding to the stone head better than did the hard coconut fiber. Sacred adzes (*toki mana*) were used in coffin-making.

STONEWORK

324 Only the briefest mention will be made of stonework since this is a subject studied and described in detail by Linton. Skilled professionals directed the labor of making the stone platforms (*paepae*), that were used in connection with houses, feast places, tomb-temples, and other sacred places. In platform construction a core of earth or rubble, or both, was encased by walls made of three types of stone: common blocks or boulders (*ke'a*), which are to be found everywhere in the valleys and streams, furnished the major part of the material used in the walls, roundish, smooth beach-boulders (*kiva*) were used for horizontal, ornamental rows in the side-walls of some terraces, and for sections of the top pavements; and squarely cut blocks (*ke'etu*) of soft, reddish, volcanic stone or coral served as a curbing to trim the edges of certain section of elaborate platforms

1: Handy E-5 (1920-1921)1923 OX6 Marquesas OX6

226 open. It was not placed on a platform, however, but rested on the ground.

Women made the cord, being summoned and directed by the master net maker (*tuhuna upena*), who was a fisherman. Twenty or thirty women 226 would work for about ten days to make sufficient cord for one of the 283 large deep-sea fishing nets. During this period they were consecrated to the work and remained in the *oho au* night and day, their food being supplied by the chief for whom the net was being made. The process of making the cord consisted in the preparation, first, of strips of soft, young fau bark, and, secondly, of coconut fiber. These materials were spun or rolled together to form a cord by the process called *fi'o,* which means to roll on the knee or thigh.

226 When the cord was completed, the nets themselves were made by the meter, which served as a trap into which the fish fell as the net was pulled up. This was called the *to'o pu'u* (fig. 18, *a*).

The fishermen put to sea about four hours before dawn. Four canoes were required for casting the deep-sea net. For the fish there were two large single canoes (*vaka nui*) as large as a war canoe, with crews of about eight men each. There were two small canoes each containing three men, each of which carried four anchors with their cords, two anchors at bow and stern being used to secure each of the *vaka nui* from which the net was handled. Part of the duty of the small canoes was to drop these anchors properly. This use of anchors indicates that at Atu Ona such fishing as is here described was not done in very deep water. Each of the small canoes had its separate name signifying its function: the *vaka fiti* (*fiti,* to go east) went to the east side of the place designated by the *tuhuna* for the night's work; the *vaka vaho* (*vaho,* outside) went to the other side. It is probable that each small canoe put down two anchors for each of the larger canoes, at the respective ends at which they operated. The place for fishing, and all operations were designated and directed by the *tuhuna.*

Arrived at the designated spot, the *upena* was let down by its eight cords until it lay on the bottom. The *tuhuna* then plunged overboard. By using his hands like telescopes he could see the fish and—so it is said—could even hear them when they went into the net. From the water he directed the operation, ordering the men in the large canoes and in the small ones, all of whom aided in handling the net, to pull up on this or that line. When the net was full the *tuhuna* gave the order for all to pull together. Sometimes one big catch would fill all the canoes.

The first netful was reserved for the fishermen. No woman might partake of it. The second netful, called *kuaho,* was reserved for the women

6: Lisiansky T-5 (1803-1806) 1814 OX6 Marquesas OX6

139 1804. [324] May. [315]

Cogoo. This tree is used for firewood. It bears a black berry, which is mixed with a certain odoriferous root, and used for painting the skin yellow.

Toar. A tree of which all the implements of war are made, on account of its hardness.

● [283] *Fow.* A tree of a middling size, from the bark of the branches of which threads for fishing-lines and nets are made.

[287] *Eooty.* From the bark of this tree, the best cloth is made. The manner of manufacturing it is similar to that which has been described by several navigators, as practised in the Sandwich Islands.

[373] *Eama.* The fruit of this tree answers the purpose of candles. It resembles small chestnuts, which, when peeled, stuck one upon another on a stick, and set on fire, burn in succession, and give an excellent light.

[289] *Hiaba.* A large tree, the bark of which is used for making short pieces of cloth, such as the islanders sometimes tie round the waist.

[301] *Foa.* This tree produces a very handsome fruit, pieces of which being strung together, are used, on festivals, as wreaths for the head, and ornaments for the neck.

ROOTS.

Taoo. A sort of yam. Its leaves may answer the purpose of brocoli, which it resembles in taste.

7: Linton E-5 (1920-1921) 1923 OX6 Marquesas OX6

FIBER AND CORDAGE

The material most commonly used for Marquesan cordage appears to have been the bark of the fau tree. The bark was obtained from young shoots two inches or less in diameter and was prepared as follows: The stripped bark was soaked for several days in a taro patch or in the backwater of a stream, left until the membrane connecting the inner and outer bark had been destroyed and the outer layer had begun to decay. The inner bark was then separated, scraped, and soaked for two or three days in fresh running water. It was then spread out and dried in the sun. Almost every native household has a bundle of this dried bark, strips of which are used for all the purposes for which Europeans employ string.

True cordage was made from the dried bark by either twisting or plaiting. Heavy rope was twisted from two or usually three strands. In manufacture the direction of rotation was the same as in European rope. In order to make the rope smooth and of uniform diameter, the bark was cut in lengths of two or three feet which were worked in gradually as the twisting progressed. The finished product was somewhat softer and more flexible than a hemp rope and when new was almost equally strong, but it did not wear as well as hemp. Twisted bark rope is still manufactured to a limited extent. The heaviest made is about one inch in diameter. In ancient times much larger ropes were made, but no examples seem to have survived. Light cords and small strings were made by rolling the bark on the thigh.

Small ropes and heavy cords were usually plaited, the bark being prepared as in rope twisting except that it was not cut into short lengths.

The strands were first loosely knotted together and held by the toes until enough cord had been braided to permit of attachment to a tree or post. The plaiting was then done in the ordinary European direction, that is, toward the workman. In cords ending in a flat loop the body of the cord was frequently twisted and the loop plaited. Three, four, six, seven, and eight strand plaits were used, but only the three and four strand plaits, called respectively *tona* and *fofii*, were used for ordinary cordage.

Rope of seven strands was used for certain ceremonial purposes (32). The six and eight strand plaits form flat bands, and are still used for the leg ends of pig tethers. (See Pl. LXV, *A*.) Although most of the natives are familiar with these techniques, none of the informants questioned were able to give a name for them.

Practically all fau bark cordage was utilitarian, although slender black cord of this material was used with other material in a few ornaments. In the feather headdress (*paekua*) it was plaited with tapa cord to form a black and white edging. The cords of the large fish net (*upena*) were dyed red with earth

7: Linton E-5 (1920-1921) 1923 OX6 Marquesas OX6

283 The cords of the large fish net (by one) were dyed red with earth
[386] called *ka'aea* which was worked into them in the course of the rolling, but apparently there was no decorative intent. Colors other than red and black do not seem to have been used. The method in dyeing the cord black was not ascertained, but it was probably the same as that used in dyeing sennit black.

[824] Next to the fau bark the material in most common use is coconut fiber. This fiber is of two kinds, that from the husk, which is short and rather stiff, and that from the leaf sheath, which is longer and more flexible, but lacks the strength of the husk fiber. Husk fiber is used for all ordinary cordage and is obtained by beating fresh moist coconut husks with stones until the tissues have been crushed and the fibers can be separated by hand. In the leaf sheath the fibers are arranged in thin layers which can easily be separated with the [227] fingers. Sheath fiber is said to have been employed for the large nets used in turtle fishing, and for the lashings of some chiefs' houses and sacred structures. It was also occasionally used for the thin cord employed in *pavahina* and as [534] strings for musical bows.

The heavier grades of coconut fiber cord are usually plaited, but the smallest cord is twisted from two strands while a somewhat heavier twisted cord, in a single strand, is used in one form of ornamental plaiting. Ordinary cord (Pl. LXV, *D* 1) was made by plaiting three untwisted strands of fiber, additional fibers being worked in as the plaiting progressed to keep the strands of uniform size.

The plaiter seated himself and, holding the end of the cord with his toes, plaited upward and away from the body. The ornamental cords used for *hue* nets and drum lashings were plaited from many strands—five, six, eight, and from nine to fifteen inclusive. They appear to have been always in the form of flat ribbons, and it is rather curious that no square four-strand coconut fiber plaits were seen although this technique was employed for some bark ropes.

Two forms of plaiting were used, one of which gave a broad thin band having the appearance of twilled fabric (Pl. LXV, *D*, 3), while in the other the strands ran in diagonally to the center of the band, where they passed alternately over and under (Pl. LXV, *D*, 2). The ends of cords made by the first technique were usually finished by short sections made by the second. In large cords made by the second technique two longitudinal strands of twisted fiber were usually used as a base, the strands of the plait passing alternately over and under these in a sort of figure eight motion. In well made cords of this type the base strands were completely covered, and the finished product gave the effect of being made from two cords tightly twisted in opposite directions and placed side by side. Many strand cords made by plaiting together elements which were themselves plaited do not appear to have been used.

7: Linton E-5 (1920-1921) 1923 OX6 Marquesas OX6

Finished three plait cord is stored in long cylindrical rolls wound to give an ornamental effect. Many strand cord on the other hand is said to have been commonly wound in thin flat rolls like European tape. (See Pl. LXV, *B*.) 283

The only dyed coconut fiber cord collected was of the three strand variety, but it is probable that the more intricate plaits were also occasionally colored. All the specimens seen were reddish brown, tan or black, but red is mentioned in native stories and Stewart, a reliable authority, speaks of yellow and white sennit used in house lashings. The reddish brown and tan sennit appears to be natural. The Tongan method of deepening the color by baking, if originally known to the natives, has been forgotten. The lightest shade of tan sennit was made from fiber of the leaf sheath. Three methods of coloring the black sennit were described. 283 386

The bark of the *mai'i* tree was beaten up with stones and the juice squeezed into large wooden bowls. The finished sennit was then steeped in the juice for several days, until it became black. It was then removed and buried for three days in the mud of a taro patch, washed, and dried. A second method consisted of burying it in the mud for a longer period without the preliminary dyeing, while a third method consisted of rubbing the finished cord with a mixture of *ama* nut soot and water.

It seems probable that when mention is made to red sennit the darker shades of red brown are referred to, but at least some red sennit was made by painting the fiber, apparently after plaiting, with the seeds of the arnotto (*Bixa orellana*). Yellow sennit was colored with saffron, the cord probably being made from the light colored fiber of the leaf sheath. White sennit must, from the nature of the fiber, have been incrusted or painted rather than dyed, and it is quite possible that it was produced by rubbing the finished cord with a paste made from shell lime or from a fine white earth, extensive deposits of which occur in Nuku Hiva. This supposition is strengthened by the fact that fans were whitened in this way.

Although most Marquesan cordage was made from either fau bark or coconut fiber a number of other fiber plants were known and used. The most important of these seems to have been the pineapple. Pineapple fiber is still used for thread and for very small fish lines, and is prepared as follows: 283 824

The fresh green leaves are taken one by one, laid across a banana log, and scraped longitudinally with any sharp-edged instrument. The bowl of an ordinary metal spoon was seen used for this purpose. Continued scraping removes all the flesh of the leaf, leaving a few soft fibers which are then dried in the sun. The women convert these fibers into thread by rolling them upon the bare thigh with the palm of the hand. To make fish lines either two or three strands of this thread are twisted together, the finished line being passed rapidly through a flame to singe off the lint.

Banana fiber is said to have formerly been used for certain kinds of cord, but this material has not been employed for many years. To prepare the fiber,

7: Linton E-5 (1920-1921) 1923 OX6 Marquesas OX6

283 banana stumps were beaten until the soft parts and fiber separated. The fiber
824 was cleaned, washed and dried, and then rolled into cord by the process just described for pineapple fiber. The only remembered use of this cord was in the making of *pehe* or string figure.

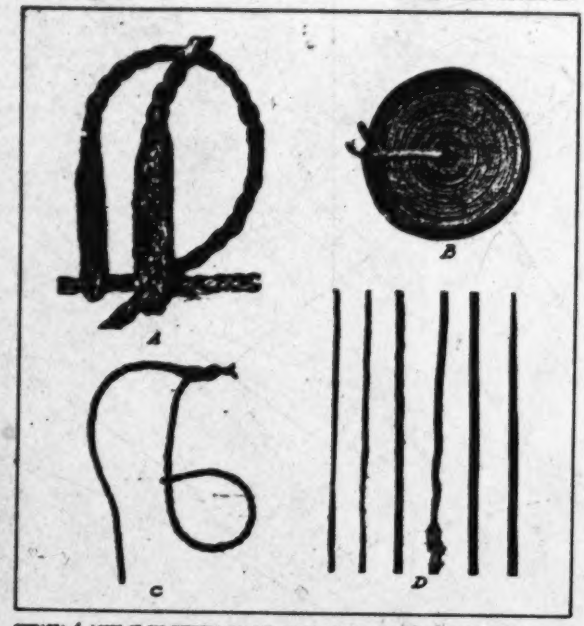
Jardin (33, pp. 32-59) mentions the use of certain other fiber plants. No accounts of these were obtained from the natives but the information appears to be reliable. The species are: *pakoko* (*Phaseolus amaenus*) of which Jardin says (33), "The flower shoots are very flexible; the natives make from them lines for catching fish;" *papa*, an unidentified legume, which, according to Jardin, "serves like the *phaseolus amaenus* for the making of threads;" and *pute* (*Pipturus propinquus*) of which the same author says, "The natives use its branches, which are very flexible, to make large ropes."

Other materials, which can scarcely be classed as fiber, were tapa, and a variety of long grass, unidentified, called by the natives *mauomatito ne tetahia*. The tapa was sometimes twisted into strings for the suspension of ornaments, but had so little tensile strength that it was usually reinforced with a strand of coconut fiber about which the tapa was wound. Strips of grass are said to have been plaited into cords which were used by girls in a game, but no more exact information could be obtained.

284 A discussion of knots and splices belongs under the general head of cord-
177 age and fiber, but it is quite impossible to distinguish at the present time between native forms and those of European origin. The Marquesas became at a very early time a regular port of call for whalers and a number of the natives served and still serve as sailors on European ships. It is not surprising, therefore, that they soon acquired a knowledge of all the European knots and splices and have for many years used them as skillfully as any white sailor.

7: Linton E-5 (1920-1921) 1923 OX6 Marquesas OX6

283
231



CORDAGE: *A*, LOOPS OF PIG TETHERS SHOWING KINDS OF PLAITING; *B*, ROLL OF CORD USED FOR SNARES; *C*, PIG TETHER OF FAU BARK; *D*, COCONUT FIBER CORD.

[end plate 26]

8: Handy T-5 (1920-1921)1922 OX6 Marquesas OX6

*304 343 561 The *oho'au tiki*, together with a sleeping house and a cook house, which were placed on a stone *paepae* near a *me'ae* (sacred place), or a *tohua* (public place), was erected for the first-born or adopted boy *(matahiapo)*, other sons usually being *ka'ioi* and achieving their tattooing piecemeal and gratis in the *oho'au* of the *opou*. This house, which belonged with all its appurtenances to the *opou* and not to the *ka'ioi* who built it—although they slept in it during the period of the operation—was [283] carefully built, though it was lashed with the coarse strips of hibiscus bark rather than with the finely braided *pu'ukaha* or coconut fiber cord usual in other dwellings. Melville might seem to suggest a different custom in Hiva Oa from that of Nuku Hiva in the description of the tattooing's being performed in large houses belonging to the *tuhuna* themselves (12, p. 48-49); but all modern recollection in Hiva Oa is of the similar custom of building the special *oho'au* for the *opou*. It may be said in passing that neither Melville's descriptions of the spacious houses of the *tuhuna* with their numerous small apartments set apart by screens of tapa for private patients and of the small tents of coarse tapa erected by itinerant *tuhuna* for patients at the times of religious festivals, nor Langsdorff's account of the operation for persons in middling station being performed in houses erected for the purpose by the tattooers and tabooed by authority (10, p. 120), are corroborated in the information gathered last year in the Marquesas. The Russian says further that the women were not, like the men, shut up in a tabooed house during the operation, but that it was performed without ceremony in their own houses or in those of relatives. This is corroborated today, particularly on Nuku Hiva; though sometimes, we are told, a small house called the *fa'e po'a (po'a*, coconut thatching*)* was built alongside the family dwelling for the tattooing of a girl and in it lived the whole family during the entire period of the operation, the main house being *tapu*, though the *fa'e po'a* was not.

*304 343 834 The *oho'au tiki*, itself, which we must take as the usual scene of the operation, was very *tapu* to outsiders. Those who entered it could have nothing to do with women, who were spoken of at this time as *vehine pu'atea (pu'atea*, a kind of tree with soft wood). Indeed these men must hide if a woman were even sighted at a distance, and it was necessary for them to cook for themselves. The men who held the legs and arms of *304 262 the *opou*, and who fanned flies during the work, were especially *tapu* and had to be served with special food. There seems to have been no regular food *tapu* for the patients during the period of the operation, though according to early visitors, there were dietary restrictions apparently for the sake of health. Garcia says the patients were forbidden for several days to take certain kinds of nourishment, such as pig and

9: Greiner E-4 (no date) 1923 OX6 Marquesas OX6

MARQUESAN DECORATIVE DESIGNS

INTRODUCTION

*531 Marquesan culture shows a curious disharmony in the development and application of decorative designs. There is a very low development of the textile arts and almost no use of decorative designs in connection with them. Marquesan baskets are unornamented, and the mats when decorated at all show only the simplest checkerwork design used as a border pattern. The ceremonial staves used by the chiefs have a band of fabric at the top made of brown sennit decorated with black hair. The designs on them are mostly simple block arrangements although one staff examined showed series of conventionalized animals probably intended as representations of lizards (Pl. 1, *a*).

The Marquesans did not decorate their tapa as did the Hawaiians, Samoans, Fijians, and in fact most other Polynesians, although in the Bernice P. Bishop Museum there is a single wooden object with a covering of tapa fitted like a glove and decorated with designs common in wood-carving. The designs on this object were painted on the tapa probably because this material afforded a better surface than the wood. The primary purpose was to decorate the figure, not the tapa. It is difficult to understand why the same technique was not employed in decorating tapa used for wearing apparel and bedding.

Although deficient in the art of decorating textiles, the Marquesans developed to a high degree forms of ornamental lashing, carving in stone and wood, and tattooing.

ORNAMENTAL LASHINGS

*531 284 The Marquesans made rather an extensive use of ornamental lashings to serve utilitarian purposes. The timbers forming the framework of houses were held together by lashings, the parts of drums were lashed together, stone tools when hafted had to be lashed, and the lashings for these and for other purposes were usually ornamental. The material used [283] was a flat plaited sennit dyed brown, reddish brown, black, more rarely yellow or bleached white; two colors were commonly used in a single lashing. Few of these ornamental sennit lashings are in existence. Members of the Bayard Dominick Expedition were fortunate in obtaining photographs of two forms used in the construction of a house, and several drums in the collection of the Bernice P. Bishop Museum display a third form. One of the lashings has the appearance of a series of concentric elipses. Another shows diagonal lines coming from two directions crossing and interweaving in the center, the whole bounded on two sides by parallel vertical lines. This design can be almost duplicated in the carving on the